

NOTICE OF INTENT TO CONDUCT  
MINOR COAL EXPLORATION  
Willow Creek Mine

July 31, 2000 Mine Fire  
Emergency Mine Atmosphere Monitoring Holes  
Dinosaur Canyon and Eagle Canyon

Plateau Mining Corporation

September 1, 2000

C:\wpdocs\willow\plans\wccxp.pln

APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING  
DATE: NOV. 30, 2000

File in:

☐ Confidential

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Refer to Record No. 0051

In C/ 0070038 2000

For additional information

Date 12/4/2000  
incoming

0051

**PLATEAU  
MINING  
CORPORATION**

**COPY**

Willow Creek Mine  
847 NW Hwy 191  
Helper, Utah 84526  
(435) 472-0475  
Fax: (435) 472-4780

An affiliate of **RAG**

December 14, 2000

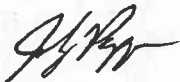
Ms. Susan M. White  
Utah Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

**Re: Clean Copy Submission, Eagle Canyon/Dinosaur Canyon Exploration, Willow Creek Mine, C/007/038-EX00K, Carbon County, Utah**

Dear Ms. White:

Plateau Mining Corporation (PMC) is submitting the clean copies regarding the aforementioned. If you have any questions or need additional information, please do not hesitate to contact me at (435) 472-4741.

Sincerely,



Johnny Pappas  
Sr. Environmental Engineer

Attachments

File: Exploration Plan - 2000 Mine Fire  
Chrono: JP001203.ltr

**RECEIVED**  
DEC 18 2000  
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12.14.2000



## APPLICATION FOR PERMIT PROCESSING

Permit Change <input type="checkbox"/>	New Permit <input type="checkbox"/>	Renewal <input type="checkbox"/>	Transfer <input type="checkbox"/>	Exploration <input checked="" type="checkbox"/>	Bond Release <input type="checkbox"/>	Permit Number: C/007/038
Title of Proposal: Exploration Permit Application to address access road reconstruction following July 31, 2000, mine fire into Eagle and Dinosaur Canyons - <b>Clean Copies</b>						Mine: Willow Creek Mine
						Permittee: Plateau Mining Corporation

Description, include reason for application and timing required to implement: Monitor mine environment as required by MSHA

**Instructions:** If you answer yes to any of the first 8 questions (gray), submit the application to the Salt Lake Office. Otherwise, you may submit it to your reclamation specialist.

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	1. Change in the size of the Permit Area? _____ acres Disturbed Area? _____ acres <input type="checkbox"/> increase <input type="checkbox"/> decrease.
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	2. Is the application submitted as a result of a Division Order? DO # _____
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	3. Does application include operations outside a previously identified Cumulative Hydrologic Impact Area?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	4. Does application include operations in hydrologic basins other than as currently approved?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	5. Does application result from cancellation, reduction or increase of insurance or reclamation bond?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	6. Does the application require or include public notice/publication?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	7. Does the application require or include ownership, control, right-of-entry, or compliance information?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	9. Is the application submitted as a result of a Violation? NOV # _____
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	10. Is the application submitted as a result of other laws or regulations or policies? Explain: _____
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	11. Does the application affect the surface landowner or change the post mining land use?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2?)
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	13. Does the application require or include collection and reporting of any baseline information?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	15. Does application require or include soil removal, storage or placement?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	16. Does the application require or include vegetation monitoring, removal or revegetation activities?
<input type="checkbox"/> Yes	<input type="checkbox"/> No	17. Does the application require or include construction, modification, or removal of surface facilities?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	18. Does the application require or include water monitoring, sediment or drainage control measures?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	19. Does the application require or include certified designs, maps, or calculations?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	20. Does the application require or include subsidence control or monitoring?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	21. Have reclamation costs for bonding been provided for?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	22. Does application involve a perennial stream, a stream buffer zone or discharges to a stream?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	23. Does the application affect permits issued by other agencies or permits issued to other entities?

☒ Attach 3 complete copies of the application.

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein. (R.645-301-123)

Subscribed and sworn to before me this 14 day of Dec, 2000

Jackie D. Bogden Notary Public

My Commission Expires 3-15-2001

State of Utah

CHARBON

Signed: John Pappas Sr. Engr. Date: 12/14/00

Notary Public  
JACKIE D. BOGDEN  
104 Helper Drive  
Helper, Utah 84526  
My Commission Expires  
March 15, 2001  
State of Utah

RECEIVED

DEC 18 2000

DIVISION OF  
OIL, GAS AND MINING

ASSIGNED TRACKING NUMBER

This Notice of Intention to Conduct Minor Coal Exploration has been prepared by Plateau Mining Corporation (a Delaware corporation) and submitted to the Utah State Division of Oil, Gas, and Mining for approval of a Minor Coal Exploration Permit to reopen access roads to existing emergency drill holes to monitor the mine atmosphere. The location of the drill holes is shown on the attached Map 1.

Format of this application is:

Each regulation for which there is a response has been underlined.

Each regulation which apparently does not apply to coal exploration is presented in smaller type, and is not followed by a response or underlined.

Each response is left justified.

Report is completed in WordPerfect Win 6.1.

#### **R645-200. Coal Exploration: Introduction.**

##### **R645-200-100. Scope.**

122. Minor Coal Exploration. Coal exploration during which 250 tons or less of coal will be removed will require Division review of a Notice of Intention to Conduct Minor Coal Exploration under the requirements of R645-201-200.

This application qualifies as minor coal exploration because less than 250 tons of coal will be removed.

##### **R645-200-200. Responsibilities**

210. It is the responsibility of any person seeking to conduct coal exploration under the State Program to comply with the requirements of R645-200 through R645-203.

It is the intent of Plateau Mining Corporation to comply with the coal exploration rules of the Utah State Division of Oil Gas and Mining (R645-200 through R645-203).

#### **R645-201. Coal Exploration: Requirements for Exploration Approval.**

##### **R645-201-200. Notices of Intention to Conduct Minor Coal Exploration.**

- R645-201-210. Notices of Intention to Conduct Minor Coal Exploration when 250 tons or less of coal will be removed will require Division review prior to

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conducting exploration.

Plateau Mining Corporation and its agents will not proceed without receiving written approval of this permit application. *Verbal authorization was given to proceed following the mine fire.*

R645-201-220. Notices of Intention to Conduct Minor Coal Exploration will include:

221. The name, address and telephone number of the applicant seeking to explore:

Plateau Mining Corporation  
847 Northwest Highway 191  
Helper, Utah 84526  
(435) 472-0475

222. The name, address and telephone number of the applicant's representative who will be present at, and responsible for conducting the exploration operations:

John Mercier  
Plateau Mining Corporation  
847 Northwest Highway 191  
Helper, UT 84526  
(435) 472-4747  
(435) 472-0475

223. A narrative and map describing the exploration area and indicating where exploration will occur:

**Narrative description of the proposed exploration area.**

The exploration holes are used to evaluate the in-mine atmosphere following the July 31, 2000, mine fire.

*Hole Descriptions:*

<i>Hole Number</i>	<i>Description</i>	<i>Purpose</i>
Hole No. 3 (Dinosaur Canyon)	In-mine monitoring hole	In-mine atmosphere
Hole No. 4 (Eagle Canyon)	In-mine monitoring hole	In-mine atmosphere

Refer to Map 1 for the drill sites.

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## Legal Land Description.

Legal description of the area of interest for this Notice of Intent to Conduct Minor Coal Exploration is as follows:

### *Drill Hole/Monitoring Hole Locations*

<i>Drill Hole No.</i>	<i>Location</i>	<i>Land Ownership</i>
	Township 12 South, Range 10 East	
Dinosaur Canyon (Hole No. 3)	Section 31: NE $\frac{1}{4}$ NE $\frac{1}{4}$	Willow Creek Fee
Eagle Canyon (Hole No. 4)	Section 31: SW $\frac{1}{4}$ SW $\frac{1}{4}$	Willow Creek Fee

See Regional Surface Ownership Map 1 attached.

### 224. A statement of the period of intended exploration; and

It is intended that in-mine monitoring will continue until it is determined that conditions are safe prior to recovering the mine. Reclamation activities are not anticipated at this time, but will be performed when the need for these monitoring holes is deemed unnecessary.

### 225. A description of the method of exploration to be used, the amount of coal to be removed and the practices that will be followed to protect the area from adverse impacts of the exploration activities and to reclaim the area in accordance with the applicable requirements of R645-202.

## Method of Exploration

No drilling took place, only access to existing monitoring holes. During the 1998 mine fire drilling was conducted to establish the monitoring holes.

Access to the drill sites is along old drill roads initially used for access to old drill sites MC-23 and MC-88 (Eagle Canyon) and MC-129 (Dinosaur Canyon), and subsequently reused for access for the emergency drill holes installed to monitor the in-mine atmosphere subsequent to the November 25, 1998, Willow Creek Mine fire.

The emergency sites were used to drill a hole at various locations into the mine workings of

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sample the mine atmosphere within the D-seam. The drill holes were not plugged following the 1998 mine fire, but left open in case a need for them was needed in the future. However, the access roads and pads were reclaimed in 1999.

**Amount of Coal to be removed.**

Drill core or other strata is expected to be recovered during the program as necessary. The amount of coal removed will be less than 250 tons.

**Practices that will be followed to protect the area from adverse impacts.**

Site drainage will be controlled by berms, bales, and/or silt fencing.

**R645-202. Coal Exploration: Compliance Duties.**

**R645-202-100. Required Documents.**

Each person who conducts coal exploration which substantially disturbs the natural land surface will while in the exploration area, have available a copy of the Notice of Intention to Conduct Minor Coal Exploration or Approved Major Coal Exploration Permit for review by an authorized representative of the Division upon request.

**R645-202-200. Performance Standards.**

210. All coal exploration and reclamation operations which substantially disturb the natural land surface or which remove more than 250 tons of coal will be conducted in accordance with the coal exploration requirements of the State Program, and any conditions on approval for exploration and reclamation imposed by the Division.

Core samples are not expected to be recovered during the program and the exploration activities will not substantially disturb the natural land surface. However, Plateau Mining Corporation did reclaim the drill pads following the 1998 mine fire by backfilling the mud pits, redistributing any soils moved during construction activities, scarifying and seeding. Any minor drainage affected by removing vegetation and construction activities were be reshaped in 1999, but were redisturbed subsequent to the 2000 mine fire and will be reshaped and seeded when monitoring is no longer necessary. The seed mix to be used is the permanent seed mixture (upland) as shown on Table 5.3-2, Volume 3 of the Willow Creek Mining and Reclamation Permit.

220. Any person who conducts any coal exploration in violation of the State Program will be subject to the provisions of 40-10-20 of the Act and the application of inspection and enforcement provisions of the R645 Rules.

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Plateau Mining Corporation will not conduct coal exploration in violation of the State Program.

230. Operational Standards.

231. Habitats of unique or unusually high value for fish, wildlife, and other related environmental values and critical habitats of threatened or endangered species identified pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) Will not be disturbed during coal exploration.

**Threatened or Endangered Species.**

There are no known threatened or endangered species within the designated area of exploration.

Quoting from the Willow Creek MRP,

In addition to vegetation community mapping and identification and characterization of plant communities, research was conducted to evaluate the potential or presence of any Threatened, Endangered or Protected (T&E) plant species. T&E evaluations included consultations under the Utah Natural Heritage Program and discussions with local botanists of both the BLM and USDA-Forest Service. The original 1981 Price River Coal Company Vegetation Inventory was reviewed, and reconnaissance level field surveys were also completed. Research indicated that while several T&E plants are known to occur in the Carbon County area, specific habitat preferences limit potential T&E occurrences within the proposed lease and project areas to only one specie of potential concern, the Canyon Western Sweetvetch, Hedysarum occidentale var. canone. The computer files of the Utah Natural Heritage Program show this specie as occurring in the upper reaches of Willow Creek several miles to the northeast of the mine site. The principal investigator for the recent vegetation inventories, who has worked extensively in this general area and is familiar with this species, has identified several small undocumented populations of Canyon Western Sweetvetch near Kenilworth, but has never encountered this specie during field work on either the "Willow Creek North" Tract (Federal Lease UTU-73975) or the planned Willow Creek facility's area.

**Wildlife and Fish**

Some of the predominate mammals which may occur in the general area include elk, deer, black bear, cougar, bobcat, coyote, badger, porcupine, snowshoe hare, golden mantled squirrel, Andy ground squirrel, red fox, gray fox, marmot, flying squirrel, and other species of small rodents.

Data from UDWR Fish and Wildlife information indicate the following birds may be found in the ecological zone:

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Golden Eagle (protected, common)  
 Bald Eagle (endangered, rare)  
 Prairie Falcon (protected, common)  
 American Peregrine (endangered, rare)  
 Goshawk (protected, uncommon)  
 Sharp-shinned Hawk (protected, uncommon)  
 Cooper's Hawk (protected, transient)  
 Red-tailed Hawk (protected, common)  
 Swainson's Hawk (protected, summer resident)  
 Marsh Hawk (protected, common)  
 Various species of owls (essentially all are protected and most show an abundance designation of common, summer resident, or transient)  
 Blue Grouse (protected as a game bird, common)  
 Ruffed Grouse (protected as a game bird, common)  
 Sage Grouse (protected as a game bird, common)  
 California Quail (protected as a game bird, common)  
 Gambel's Quail (protected as a game bird, common)  
 Chukar (protected as a game bird, common)  
 Great Blue Heron (protected, abundance unknown)  
 Various species of geese, ducks, teal scalps, mergansers, and widgeons (essentially all are protected as game birds and most show an abundance designation of either common, summer resident, or transient).

A raptor inventory was conducted on May 15, 2000, and no active nest sites were found.

A Goshawk inventory was conducted June 1996 in the general areas by E.I.S. This inventory was conducted in conjunction with Environmental Assessment No. UT-066-97-24, Environmental Assessment for dba 138 kV Carbon-Spanish Fork Number 2 Transmission Line re-route Right-of-Way application UTU-74309, May 1997. No Goshawks were observed.

The Price River and Willow Creek are the only perennial streams or bodies of water capable of supporting fish within or near the exploration area.

Reptiles and amphibians of the area may include; boreal toad, leopard frog, northern sagebrush lizard, rocky mountain rubber boa, great basin gopher snake and great basin rattlesnake.

Since all of the drill sites are near major highways and active mining areas, wildlife are either not present or have adjusted to the activity and there will be no disturbance to them.

232. All roads or other transportation facilities used for coal exploration will comply with the applicable provisions of R645-301-358, R645-301-512.250, R645-301-526.200, R645-301-527.100, R645-301-527.230, R645-301-534.100, through R645-301-534.300, R645-301-742.420, R645-301-752.200, and R645-301-762.

Access to monitoring sites is through the mine facilities past the propane storage tanks and then on the old access roads used to drill MC-23, MC-88 and MC-129 in 1974, 1976 and 1977, respectively, and subsequently during the 1998 mine fire.

R645-301-358. Protection of Fish, Wildlife, and Related Environmental Values. The operator will, to the extent possible using the best technology currently available, minimize disturbances and adverse impacts on fish, wildlife, and related environmental values and will achieve enhancement of such resources where practicable.

Plateau Mining Corporation, will to the extent possible, minimize disturbances and adverse impacts to fish, wildlife, and related environmental values. See response to R645-202-231 above.

R645-301-512.250 Primary Roads. The professional engineer will certify the design and construction or reconstruction of primary roads as meeting the requirements of R645-301-534.200 and R645-301-742.420.

Primary roads were not constructed during this project per definition in R645-301-527.120-123.

R645-301-526.200. The plan must classify each road.

The access roads to be used are ancillary roads.

R645-301-527.230. A maintenance plan describing how roads will be maintained throughout their life to meet the design standards throughout their use.

The roads will be graded prior to and during the exploration activities as needed. The road will also be watered if needed to control dust caused by travel. Heavy snowfall may require the periodic removal of such by snow plow or tractor as needed.

R645-301-534.100. Roads will be located, designed, constructed, reconstructed, used, maintained, and reclaimed so as to:

534.110. Prevent or control damage to public or private property;

Maintenance of the access roads will be minor. The roads are located on land owned by Plateau Mining Corporation.

534.120. Use non-acid-forming or non toxic-forming substances in road surfacing;

The roads will not be surfaced.

534.130. Have, at a minimum, a static safety factor of 1.3 for all embankments.

Access is on existing roads that have been in place for many years. Reconstruction of any portion utilized methods employed throughout PMC's exploration program to ensure proper stability.

- 534.140. Have a schedule and plan to remove and reclaim each road that would not be retained under an approved postmining land use.

The earthen access roads will be reclaimed when the need for short- and/or long-term monitoring requirements are unnecessary.

- 534.150. Control or prevent erosion, siltation and the air pollution attendant to erosion by vegetating or otherwise stabilizing all exposed surfaces in accordance with current, prudent engineering practices.

Erosion control measures will be taken, including diverting overland flows around the roads and drill pads where necessary, constructing berms, installing silt fences, and other measures as required.

- 534.200. To ensure environmental protection and safety appropriate for their planned duration and use, including consideration of the type and size of equipment used, the design and reconstruction of roads will incorporate appropriate limits for grade, width, surface materials, and any necessary design criteria established by the Division.

The access roads are sufficient for mobilization of drill and construction equipment. The roads are generally less than 15 feet wide and composed of compacted sands and gravel. As necessary, berms will be used to divert flows that would cause erosion or other problems.

- R645-202-233. Topsoil will be separately removed, stored, and redistributed on areas disturbed by coal exploration activities as necessary to assure successful revegetation or as required by the Division.

Access is on land previously disturbed for access to old drill sites. However, some minor earthwork was required to upgrade to roads. Road reconstruction entailed the use of a trackhoe to shape the road and minimize debris and material loss down slope by carefully handling the material. The growth media and immediate underlying soils were placed/pushed to the outside road berm where it will be readily available during reclamation. During reclamation, the growth media will be redistributed on the new disturbance associated with the road construction.

- R645-202-234. Diversions of overland flows and ephemeral, perennial, or intermittent streams will be made in accordance with R645-301-742.300.

No major diversions were necessary for the duration of this project. Minor diversions were utilized to control erosion or divert flows away from the roads or drill pads. Diversions of

overland flows were made in accordance with R645-301-742.300. Water bars, ditches and/or culverts will be used if needed to control overland flow.

R645-202-235. Coal exploration will be conducted in a manner which minimizes disturbance of the prevailing hydrologic balance in accordance with R645-301-356.300 through R645-301-356.400, R645-301-512.240, R645-301-513.200, R645-301-514.300, R645-301-515.200, R645-301-533.100 through R645-301-533.600, R645-301-731.100 through R645-301-731.522, R645-301-731.800, R645-301-733.220, through R645-301-733.240, R645-301-742.200 through R645-301-742.300, R645-301-743, and R645-301-763. The Division may specify additional measures which will be adopted by the person engaged in coal exploration.

356.300. Siltation structures will be maintained until removal is authorized by the Division and the disturbed area has been stabilized and revegetated. In no case will the structure be removed sooner than two years after the last augmented seeding.

356.400 When a siltation structure is removed, the land on which the siltation structure was located will be revegetated in accordance with the reclamation plan and R645-301-353 through R645-301-357.

Minor siltation structures such as silt fences, straw bales or berms will be used as needed to control erosion after monitoring is completed. If reclamation is delayed beyond the period immediately after monitoring, (i.e. if adverse weather conditions prevent reclamation from taking place before the close of the reclamation season) siltation structures will be maintained until reclamation is completed.

512.240. Impoundments. The professional engineer will use current, prudent, engineering practices and will be experienced in the design and construction of impoundments and certify the design of the impoundment according to R645-301-743.

513.200. Impoundments and sedimentation ponds meeting the size of other qualifying criteria of MSHA, 30 CFR 77.216 (a) will comply with the requirements of MSHA, 30 CFR 77.216 (see R645-301-533.600, R645-301-742.222, and R645-301-742.223).

514.300. Impoundments.

515.200 Impoundment Hazards. The permit application will incorporate a description of notification when potential impoundment hazards exist. The requirements for the description are: If any examination or inspection discloses that a potential hazard exists, the person who examined the impoundment will promptly inform the Division of the finding and of the emergency procedures formulated for public protection and remedial formulated for public protection and remedial action. If

adequate procedures cannot be formulated or implemented, the Division will be notified immediately. The division will then notify the appropriate agencies that other emergency procedures are required to protect the public.

- 533.100. An impoundment meeting the size or other criteria of 30 CFR 77.216(a) or located where failure would be expected to cause loss of life or serious property damage will have a minimum static safety factor of 1.5 for a normal pool with steady state seepage saturation conditions and a seismic safety factor of at least 1.2. Impoundments not meeting the size or other criteria of 30 CFR 77.216(a), except for coal mine waste impounding structure, and located where failure would not be expected to cause loss of life or serious property damage will have a minimum static safety factor of 1.3 for normal pool with steady state seepage saturation conditions or meet the requirements of R645-301-733.210.
- 533.200. Foundation for temporary and permanent impoundments must be designed so that:
- 533.210. Foundation and abutments for the impounding structure will be stable under all conditions of construction and operation of the impoundment. Sufficient foundation investigations and laboratory testing will be performed in order to determine the design requirements for foundation stability; and
- 533.220. All vegetative and organic materials will be removed and foundations excavated and prepared to resist failure. Cutoff trenches will be installed if necessary to ensure stability.
- 533.300. Slope protection will be provided to protect against surface erosion at the site and protect against sudden drawdown.
- 533.400. Faces of embankments and surrounding areas will be vegetated except that faces where water is impounded may be riprapped or otherwise stabilized in accordance with accepted design practices.
- 533.500. The vertical portion of any remaining highwall will be located far enough below the low-water line along the full extent of highwall to provide adequate safety and access for the proposed water users.
- 533.600. Impoundments meeting the criteria of MSHA, 30 CFR 77.216(a) will comply with the requirements of MSHA, 30 CFR 77.216 and R645-301-512.240, R645-301-514.300, R645-301-515.200, R645-301-533.100 through R645-301-533.600, R645-301-733.220 through R645-301-733.224, and R645-301-743. The plan required to be submitted to the District Manager of MSHA under 30 CFR 77.216 will also be submitted to the Division as part of the permit application.

Not applicable because impoundments, as managed under these regulations, will not be

DATE: NOV. 30, 2002



constructed for this exploration project.

731.100. Hydrologic-Balance Protection.

731.110. Groundwater Protection. In order to protect the hydrologic balance, coal mining and reclamation operations will be conducted according to the plan approved under R634-301-731 and the following:

731.111. Groundwater quality will be protected by handling earth materials and runoff in a manner that minimizes acidic, toxic or other harmful infiltration to groundwater systems and by managing excavations and other disturbances to prevent or control the discharge of pollutants into the groundwater;

Ground water quality will be protected by handling earth materials and runoff from the drilling activities in a manner that minimizes acidic, toxic, and other harmful materials; infiltration by containing the drill water in an open air pit allowing maximum evaporation and thus, diminishing the chance of infiltrating into ground water systems. Drill holes will be plugged (cemented) from bottom to top by a licensed driller once the long term need of the drill hole is determined (i.e. in-mine monitoring) to prevent infiltration of surface water into the ground.

731.112. For the purposes of Surface coal mining and reclamation activities ground water quantity will be protected by handling earth materials and runoff in a manner that will restore approximate premining recharge capacity of the reclaimed area as a whole, excluding coal mine waste disposal areas and fills, so as to allow the movement of water to the ground water system.

Not applicable because this exploration project will not include surface coal mining.

731.120. Surface Water Protection. In order to protect the hydrologic balance, coal mining and reclamation operations will be conducted according to the plan approved under R645-301-731 and the following:

731.121. Surface water quality will be protected by handling earth materials, ground water discharges and runoff in a manner that minimizes the formation of acidic or toxic drainage; prevents, to the extent possible using the best technology currently available, additional contributions of suspended solids to streamflow outside the permit area; and, otherwise prevent water pollution. If drainage control, restabilization and revegetation of disturbed areas, diversion of runoff, mulching or other reclamation and remedial practices are not adequate to meet the requirements of R645-301-731.100 through R645-301-731.522, R645-301-731.800 and R645-301-751, the operator will use and maintain the necessary water treatment facilities or water quality controls; and

731.122. Surface water quantity and flow rates will be protected by handling earth materials

and runoff approved under R645-301-731.

Discussions of roads and drill pads runoff have been presented previously.

731.200. Water Monitoring.

731.210. Ground Water Monitoring. Ground water monitoring will be conducted according to the plan approved under R645-301-731.200 and the following:

The drill holes will not be used for water monitoring purposes.

731.211. The permit application will include a ground water monitoring plan based upon the PHC determination required under R645-301-728 and the analysis of all baseline hydrologic, geologic and other information in the permit application. The plan will provide for the monitoring of parameters that relate to the suitability of the ground water for current and approved postmining land uses and to the objectives for protection of the hydrologic balance set forth in R645-301-731. It will identify the quantity and quality parameters to be monitored, sampling frequency and site locations. It will describe how these data may be used to determine the impacts of the operation upon the hydrologic balance. At a minimum, total dissolved solids or specific conductance corrected to 25 degrees C, pH, total iron, total manganese and water levels will be monitored;

731.212. Ground water will be monitored and data will be submitted at least every three months for each monitoring location. Monitoring submittals will include analytical results from each sample taken during the approved reporting period. When the analyses of any ground water sample indicates noncompliance with the permit conditions, then the operator will promptly notify the Division and immediately take the actions provided for in R645-300-145 and R645-301-731;

731.213. If an applicant can demonstrate by the use of the PHC determination and other available information that a particular water bearing stratum in the proposed permit and adjacent areas is not one which serves as an aquifer which significantly ensures the hydrologic balance within the cumulative impact area, then monitoring of that stratum may be waived by the Division;

713.214. Ground water monitoring will proceed through mining and continue during reclamation until bond release. Consistent with the procedures of R645-303-220 through R645-303-228 the Division may modify the monitoring requirements including the parameters covered and the sampling frequency if the operator demonstrates, using the monitoring data obtained under R645-301-731.214 that:

713.214.1 The coal mining and reclamation operation has minimized disturbance to the prevailing hydrologic balance in the permit and adjacent areas and prevented

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material damage to the hydrologic balance outside the permit area; water quantity and quality are suitable to support approved postmining land uses and the surface coal mining and reclamation activity has protected or replaced the water rights of other users; or

- 713.214.2. Monitoring is no longer necessary to achieve the purposes set forth in the monitoring plan approved under R645-301-731.211.
- 731.215. Equipment, structures and other devices used in conjunction with monitoring the quality and quantity of ground water on-site and off-site will be properly installed, maintained and operated and will be removed by the operator when no longer needed.
- 713.220. Surface Water Monitoring. Surface water monitoring will be conducted according to the plan approved under R645-301-731.220 and the following:
- 731.221. The permit application will include a surface water monitoring plan based upon the PHC determination required under R645-301-728 and the analysis of all baseline hydrologic, geologic and other information in the permit application. The plan will provide for the monitoring of parameters that relate to the suitability of the surface water for current and approved postmining land uses and to set forth in R645-301-731 as well as the effluent limitations found in R645-301-751;
- 731.222. The plan will identify the surface water quantity and quality parameters to be monitored, sampling frequency and site locations. It will describe how these data may be used to determine the impacts of the operation upon the hydrologic balance:

Regulation's 731.210 through 731.222 are not applicable to this coal exploration application.

- 731.800. Water Rights and Replacement. Any person who conducts surface coal mining and reclamation activities will replace the water supply of an owner of interest in real property who obtains all or part of his or her supply of water for domestic, agricultural, industrial, or other legitimate use from an underground or surface source, where the water supply has been adversely impacted by contamination, diminution, or interruption proximately resulting from the surface mining activities. Baseline hydrologic information required in R645-301-624.100 through R645-301-624.200, R645-301-625, R645-301-626, R645-301-723 through R645-301-724.300, R645-301-724.500, R645-301-725 through R645-301-731, and R645-301-031.210 through R645-301-731.223 will be used to determine the extent of the impact of mining upon ground water and surface water.

Regulation 731.800 is not applicable to this coal exploration application.

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- 742.200. Siltation Structures.
- 742.210. General Requirements.
- 742.211. Additional contributions of suspended solids and sediment to streamflow of runoff outside the permit area will be prevented to the extent possible using the best technology currently available.
- 742.212. Siltation structures for an are will be constructed before beginning any coal mining and reclamation operations in that area and, upon construction, will be certified by a qualified registered professional engineer to be constructed as designed and as approved in the reclamation plan.
- 742.213. Any siltation structures which impounds water will be designed, constructed and maintained in accordance with R645-301-512.240, R645-301-514.300, R645-301-515.200, R645-301-533.100 through R645-301-533.600, R645-301 through R645-301-733.224, and R645-301-743.
- 742.214. For the purposes of Underground coal mining and reclamation activities, any point-source discharge of water from underground workings to surface waters which does not meet the effluent limitations of R645-301-751 will be passed through siltation structure before leaving the permit area.

Construction of siltation structure and stream crossing has been discussed previously.

- 742.220. Sedimentation Ponds.
- 742.221. Sedimentation ponds, when used, will:
- 742.221.1. Be used individually or in series;
- 742.221.2. Be located as near as possible to the disturbed area and out off perennial streams unless approved by the Division; and
- 742.221.3. Be designed, constructed, and maintained to:
- 742.221.31. Provide adequate sediment storage volume;
- 742.221.32. Provide adequate detention time to allow the effluent from the ponds to meet Utah and federal effluent limitations;
- 742.221.33. Contain or treat the 10-year, 24-hour precipitation event ("design event") unless a lesser design event is approved by the Division based on terrain, climate, or other site-specific conditions and on a demonstration by the operator that the effluent

limitations of R645-301-751 will be met;

- 742.221.34. Provide a nonclogging dewatering device adequate to maintain the detention time required under R645-301-742.221.32.
- 742.221.35. Minimize, to the extent possible, short circuiting;
- 742.221.36. Provide periodic sediment removal sufficient to maintain adequate volume for the design event;
- 742.221.37. Ensure against excessive settlement;
- 742.221.38. Be free of sod, large roots, frozen soil, and acid or toxic forming coal processing waste; and
- 742.221.39. Be compacted properly.
- 742.222. Sedimentation ponds meeting the size or other qualifying criteria of the MSHA, 30 CFR 77.216(a) will comply with all the requirements of that section, and will have a single spillway or principal and emergency spillways that in combination will safely pass a 100-year, 6-hour precipitation event or greater event as demonstrated to be necessary by the Division.
- 742.223. Sedimentation ponds not meeting the size or other qualifying criteria of the MSHA, 30 CFR 77.216(a) will provide a combination of principal and emergency spillways that will safely discharge a 25-year, 6-hour precipitation event or greater event as demonstrated to be needed by the division. Such ponds may use a single open channel spillway if the spillway is:
  - 742.223.1. Of nonerodible construction and designed to carry sustained flows; or
  - 742.223.2. Earth or grass lined and designed to carry short-term infrequent flows at non-erosive velocities where sustained flows are not expected.
- 742.224. In lieu of meeting the requirements of R645-301-742.223.1 and 742.223.2 the Division may approve a sedimentation pond that relies primarily on storage to control the runoff from the design precipitation event when it is demonstrated by the operator and certified by a qualified registered professional engineer in accordance with R645-201-512.200 that the sedimentation pond will safely control the design precipitation event. The water will be removed from the pond in accordance with current, prudent, engineering practices and any Sediment pond so used will not be located where failure would be expected to cause loss of life or serious property damage.

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- 742.225. An exception to the sediment pond location guidance in R645-301-742.224 may be allowed:
- 742.225.1. In the case of a sedimentation pond meeting the size or other criteria of 30 CFR 77.216(a), if the pond is designed to control the precipitation of the probable maximum precipitation of a 6 hour event or greater event if specified by the Division; or 30 CFR 816.46 (c) (2) (ii) (A))
- 742.225.2. In the case of a sedimentation pond not meeting the size or other criteria of 30 CFR 77.216 (a), if the pond is designed to control the precipitation of a 100-year 6-hour event or greater event if demonstrated to be needed by the Division.
- 742.230. Other Treatment Facilities.
- 742.231. Other treatment facilities will be designed to treat the 10-year, 24-hour precipitation event unless a lesser design event is approved by the Division based on terrain, climate, other site-specific conditions and a demonstration by the operator that the effluent limitations of R645-301-751 will be met.
- 742.232. Other treatment facilities will be designed in accordance with the applicable requirements of R645-30-1742.220.
- 742.240. Exemptions. Exemptions to the requirements of R645-301-742.200 and R645-301-763 may be granted if the disturbed drainage area within the total disturbed area is small and the operator demonstrates that siltation structures and alternate sediment control measures are not necessary for drainage from the disturbed areas to meet the Effluent limitations under R645-301-751 or the applicable Utah and federal water quality standards for the receiving waters.

Regulation's 742.200 through 7420 are not applicable to this coal exploration project.

742.300. Diversions.

Addressed previously.

763. Siltation Structures.

763.100. Siltation Structures will be maintained until removal is authorized by the Division and the disturbed area has been stabilized and revegetated. In no case will the structure be removed sooner than two years after the last augmented seeding.

763.200. When the siltation structure is removed, the land on which the siltation structure was located will be regarded and revegetated in accordance with the reclamation plan and R645-301-358, R645-301.356, and R645-301-357. Sedimentation ponds

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approved by the Division for retention as permanent impoundments may be exempted from this requirement.

Alternate sediment control measures would consist of using berms, straw bales and/or silt fences as temporary siltation structures, and by using berms to divert water to siltation structures if needed.

R645-202-236. Acid- or toxic-forming materials will be handled and disposed of in accordance with R645-301-731.110, R645-301-731.300, and R645-301-553.260. The Division may specify additional measures which will be adopted by the person engaged in coal exploration.

Acid-forming or toxic-forming materials will not be used on this project. Fuel spill contamination will be contained, collected and disposed of, off property, in an approved manner.

R645-202-240. Reclamation Standards.

R645-202-241. If excavations, artificially flat areas, or embankments are created during exploration, these areas will be returned to the approximate original contour promptly after such features are no longer needed for coal exploration.

R645-202-242. All areas disturbed by coal exploration activities will be revegetated in a manner that encourages prompt revegetation and recovery of a diverse, effective, and permanent vegetative cover. Revegetation will be accomplished in accordance with the following:

R645-202-242.100. All areas disturbed by coal exploration activities will be seeded or planted to the same seasonal variety native to the areas disturbed. If the land use of the exploration area is intensive agriculture, planting of the crops normally grown will meet the requirements of R645-202-242.100; and

R645-202-242.200. The vegetative cover will be capable of stabilizing the soil surface from erosion.

The exploration sites will have trash and debris removed. The drill pads will be returned to the approximate original contour, scarified, and re-seeded with the seed mix shown on Table 5.3-2 in the Willow Creek MRP. Existing roads will be returned to a condition equal to or better than their condition prior to commencement of the exploration activities. Seeding of the rehabilitated drill pads will be accomplished in the first season following completion of the exploration or monitoring program.

R645-202-243. Each exploration hole, borehole, well, or other exposed underground opening created during exploration will be reclaimed in accordance with

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R645-301-529, R645-301-551, R645-301-631, R645-301-738, and R645-301-765.

Upon determination of the future need for drill holes, the holes will be cemented from bottom to the collar of the hole (total depth) by a licensed driller. Reclamation of roads and drill pads has been addressed previously.

R645-202-244. All facilities and equipment will be promptly removed from the exploration area when they are no longer needed for exploration, except for those facilities and equipment that the Division determines may remain to:

R645-202-244.100. Provide additional environmental data;

R645-202-244-200. Reduce or control the on-site and off-site effects of the exploration activities; or

R645-202-244-300. Facilitate future coal mining and reclamation operations by the person conducting the exploration.

All equipment will be promptly removed from the exploration/monitoring area upon completion of mine atmosphere monitoring, and reclamation will be conducted as described in response to R645-202-240 to 242.200 above.

### **Bonding**

It is my understanding that the Division does not require bond revisions for cumulative activities that do not increase the existing bond by more than 5 percent. Therefore, the existing \$11,949,205.00 is sufficient to cover this exploration activity.

Thus far, the only approved revisions to the Willow Creek Mine Permit that would apply to the 5 percent rule are the \$49,537.00 for the Clean Coal Pile Expansion and the Barn Canyon Shaft for \$110,00.00. This totals \$159,537.00.

The proposed activity will not add significantly to that already accrued against the bond to where it exceeds the 5 percent rule. In order to exceed the 5 percent rule, \$597,460.00 of cumulative increases will have to be proposed and approved.

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MAP 1

REGIONAL SURFACE OWNERSHIP

WITH

EXPLORATION DRILL HOLE LOCATIONS

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